

REMARKS

The Office action of 11 April 2007 (Paper No. 20070314) has been carefully considered.

Claims 1-13, 21 and 26-35 are being canceled without prejudice or disclaimer, and claims 14, 17, 22, 24, 25, 36 and 39 are being amended. Thus, claims 14-20, 22-25 and 36-41 are pending in the application.

In paragraphs 2 thru 6 of the Office action, the Examiner rejects claims 1 thru 41 under 35 U.S.C. §101 because “the claimed invention lacks patentable utility”, the Examiner contending that the claims do not recite a “post processing step” and that the subject matter recited in the claims does not have a practical application.

With respect to claims 1-13 and 26-35, these claims are being canceled without prejudice or disclaimer, as mentioned above.

With respect to claims 14-20 and 36-41, as discussed in paragraph 5 of the Office action, independent claims 14 and 17 actually recite an approximation system for a series expansion of an input function with a finite number of terms N to minimize an approximation error. Thus, claims 14-21 and 36-41 do not merely recite an algorithm as alleged by the Examiner, but actually recite a physical system (that is, an approximation

system). Moreover, as recited in independent claims 14 and 17, the approximation system includes an operational processing unit, and the operational processing unit is recited as comprising the various “means” for accomplishing various physical functions, such “means” being recited in accordance with 35 U.S.C. §112 (sixth paragraph).

Thus, claims 14-21 and 36-41 recite physical systems containing a specifically recited hardware unit (the operational processing unit) for performing certain functions (recited in the various “means” clauses) so as to accomplish a specific post processing result (recited in the “whereby” clause now included at the end of each independent claim). Clearly, the systems recited in claims 14-21 and 36-41 have a practical application, that is, minimization of the approximation error which might otherwise result during operation.

With respect to claims 22-25, as discussed in paragraph 6 of the Office action, the same arguments set forth above relative to claims 14-20 and 36-41 apply equally to claims 22-25. That is, independent claim 22 recites an OFDM system for compensating a carrier frequency offset, the system being recited as comprising an estimator, a first phase rotation calculator, a second phase rotation calculator, and a compensator. Thus, claims 22-25 recite a system comprising various hardware elements for performing the recited functions, and independent claim 22 does recite a post-processing result, that is, compensation of the carrier frequency offset (see the recitation now included in the last

paragraph of claim 22). As a result, it is clear that the OFDM system recited in claims 22-25 does have a practical application.

For the reasons stated above, it is submitted that claims 14-20, 22-25 and 36-41 recite proper subject matter under 35 U.S.C. §101, and do have patentable utility, so that patent protection for the subject matter of those claims should be granted.

Dependent claim 24 is rejected under 35 U.S.C. §112 (second paragraph) as being incomplete for omitting essential steps.

As a result, dependent claim 24 is being amended to include the calculation steps, which were inadvertently omitted from original claims 24 when that claim was presented without amendment thereof in the Amendment filed on 11 January 2007. It should be noted that the calculation steps were included in original claim 24 as contained in the application as originally filed. Therefore, the rejection of claim 24 under 35 U.S.C. §112 (second paragraph) should no longer apply, and should be withdrawn.

In view of the above, it is submitted that the claims of this application are in condition for allowance, and early issuance thereof is solicited. Should any questions remain unresolved, the Examiner is requested to telephone Applicants' attorney.

No fee is incurred by this Amendment.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "R. E. Bushnell", written over a horizontal line.

Robert E. Bushnell,
Attorney for the Applicants
Registration No.: 27,774

1522 "K" Street N.W., Suite 300
Washington, D.C. 20005
(202) 408-9040

Folio: P56978
Date: 7/5/07
I.D.: REB/JGS